Discussion of

STOCK MARKET MILESTONES AND MORTGAGE DEMAND: EVIDENCE FROM US

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Quick Summary of the Paper

- Q: Linkage between the stock market and the housing market: What effect does a milestone in stock market index (round 1000 in DJI) have on mortgage applications? On mortgage default?

- A: After the stock market index reaches a milestone number, mortgage applications go up, both for first homes and second homes.

- Default probability, in two years after origination, also goes up.
  - Not because the applicants are riskier, but because the loans are riskier (higher LTV and DTI).

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Quick Summary of the Paper

- Two potential sources of the linkage between stock market milestones and mortgage applications?

  - Wealth effect
  - Attention effect

  Turns out that the linkage is driven by the attention effect, not the wealth effect.
  Technically, it is the ‘attention to wealth’ effect!

Quick Evaluation of the Paper

- Very interesting and highly relevant question.
- Model design and identification strategy is convincing.
- The authors have already anticipated and addressed the many questions I came up with
- Important for market players (more on this later).

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Quick Evaluation of the Paper

- Challenging to identify the effect of round number in the stock market on mortgage demand
  - these transactions are equilibrium outcomes of credit demand and supply.
  - hard to distinguish the wealth effect and the attention effect since large rises in stock market increase investors' wealth as well as grabbing their attention.

- They address these challenges
  - with a detailed data set to identify mortgage demand
  - by studying and comparing the effect of milestones with the effect of similar historical maximums on mortgage demand

Comments and Questions

- Do we know if households sell some/all of their stocks at milestones? If they do, then what you get is pure wealth affect (attention affect at best might have induced them to realize their profits in the stock market).
  - Such an analysis would help us identify whether the effect of attention is through expectations (perceived wealth) or actual wealth (realized wealth)

If they do, could it be a portfolio rebalancing effect? Shifting some of their investment from stocks to RE?

Comments and Questions

- Concern for the direction of causality?

The causality can go the other way around as well. Do increasing house prices lead to more stock purchases?

Chetty et al. (2017): increases in property value (holding home equity constant) reduce stockholding, while increases in home equity wealth (holding property value constant) raise stockholding.

Why not test this with your data as well and establish the direction of causality?

Comments and Questions

"*More concretely, in the weeks following the milestone the default rate of loans increased on average by around 0.20 percentage points. The default rate increased by 0.30 percentage points 12 weeks after the milestones*."

We know that a newly originated loan has close to zero probability of default in the first year or two. This result must be driven either by an increase in the default rate of loans originated prior to (not following the) milestone and/or loans originated right before the financial crisis.

We need to control for default determinants in the two years following the origination (not just at the time of origination)

Is the increased default risk priced in? or are the lenders suffering from the 'attention' problem as well?

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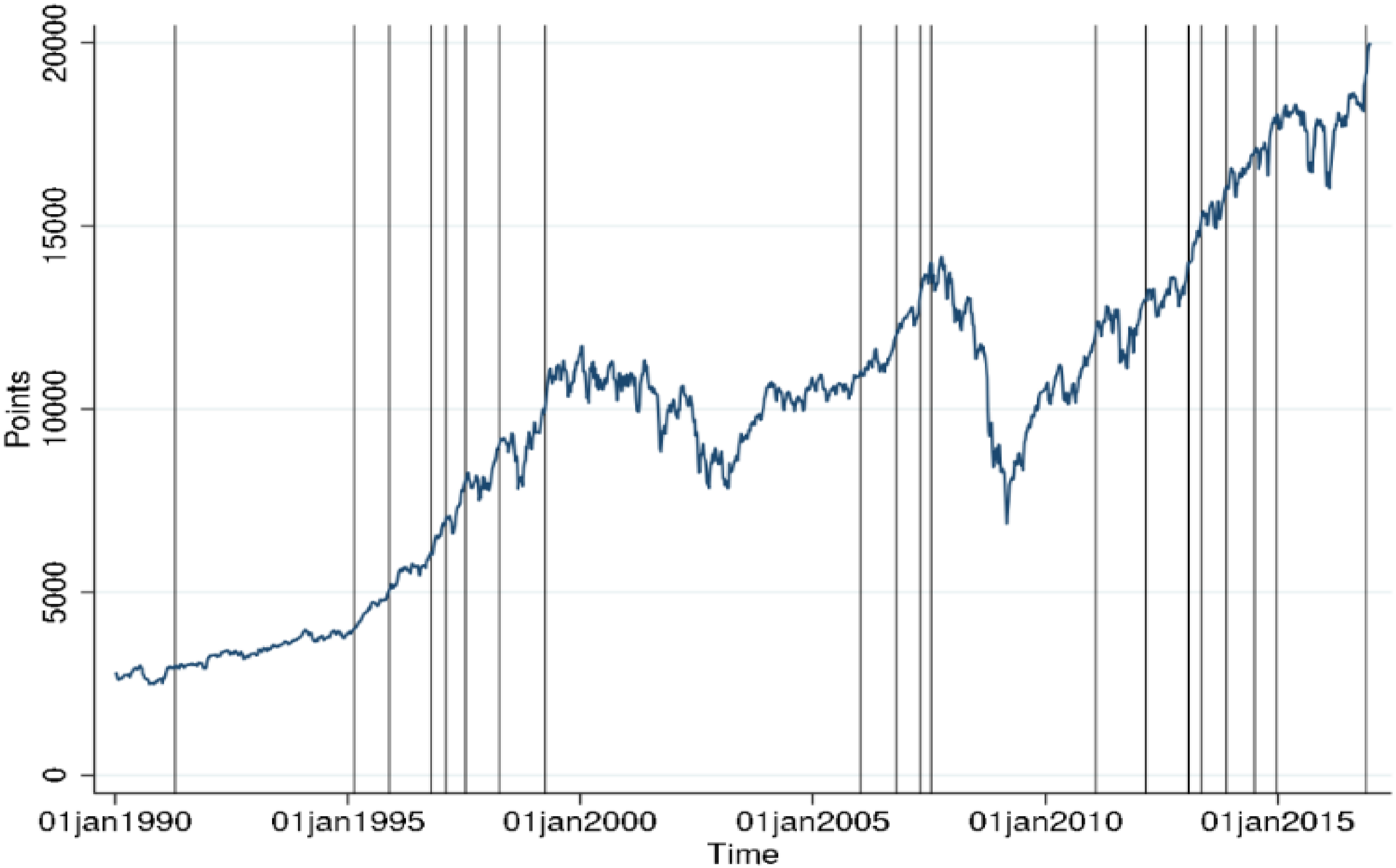
Comments and Questions



The vertical lines highlight the milestones

Comments and Questions

- Is the affect dependent on the **time interval** between the two milestones?

  That is, are the results mostly driven by the milestones following a prolonged period of no milestones?

Comments and Questions

- Is the effect of 1000-point round number the same when we reach 2000 points (going from 1000 to 2000 points ~ 100% increase) versus when we reach 32,000 points (from 31K to 32K ~ 3% increase)?

  As/more importantly, is reaching 30K the same as reaching 29K or 31K? I assume 10K, 20K and 30K (and 5, 15 and 25K to a lesser extend) would be a lot more attention grabbing.
  - a bigger wealth effect when we go from 6000 to 7000 but a bigger attention effect when you go from 9K to 10K or from 19K to 20K: a potential tool to disentangle the two effects.

- Will help us understand if the results are mostly driven by these ‘bigger’ milestones?

Comments and Questions

- Is the affect **symmetric**? Is the negative impact of dropping down next 1000 milestone the same magnitude as the positive impact reaching up the next 1000 milestone?

  These questions, and their answers, may not change the conclusion of the paper that milestones matter, but they help us (and policy makers) understand which milestones matter more.

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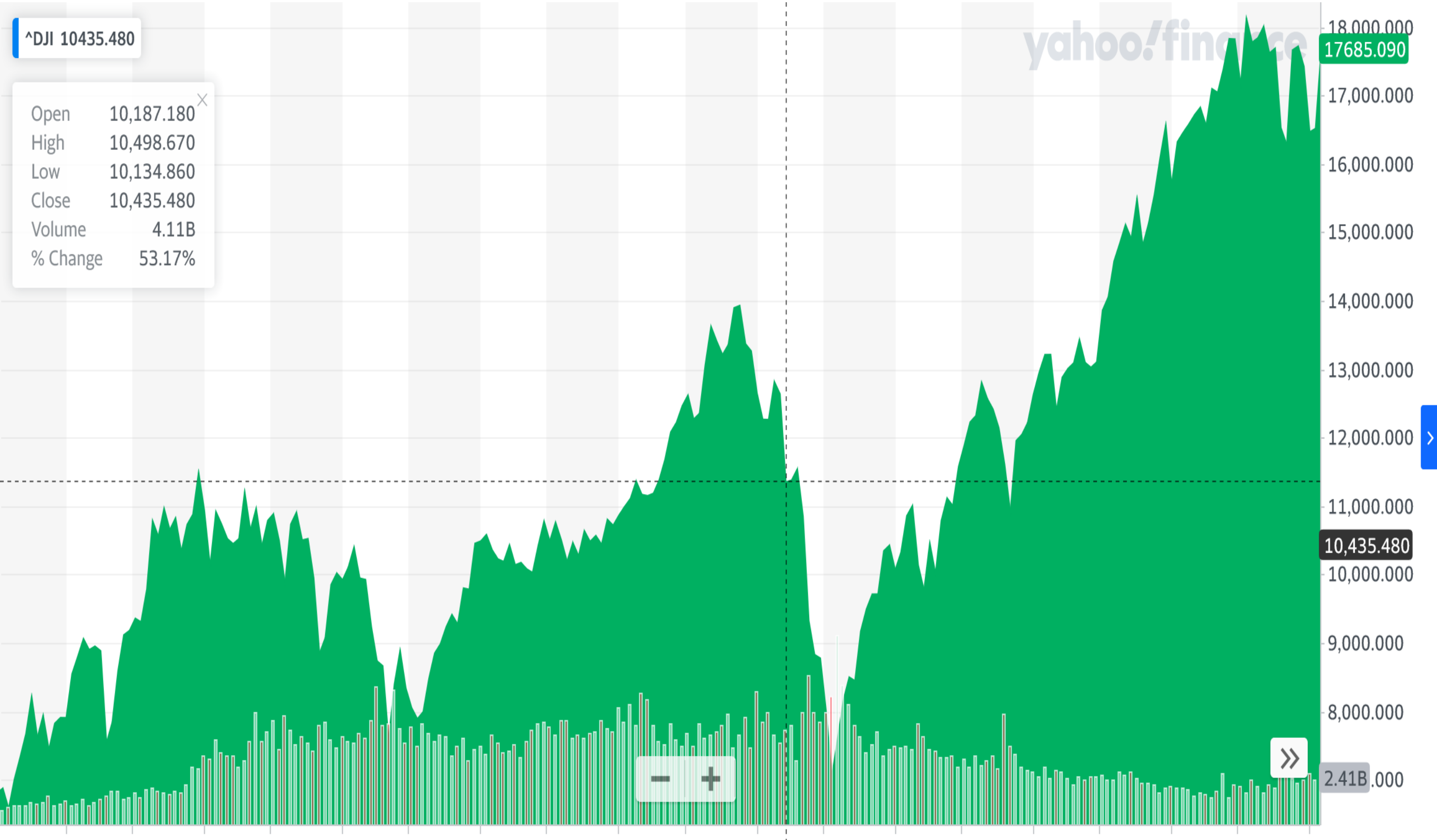
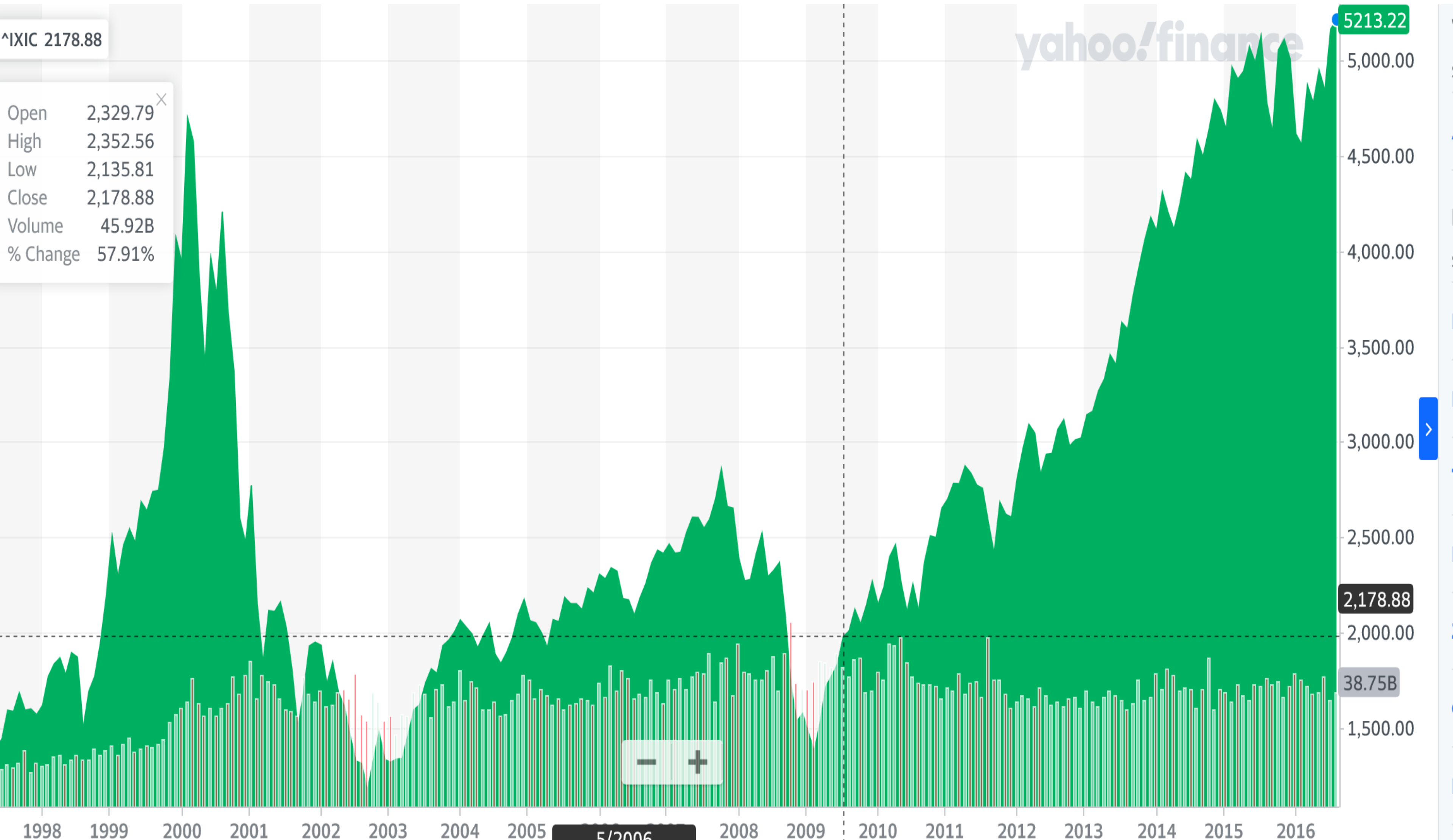
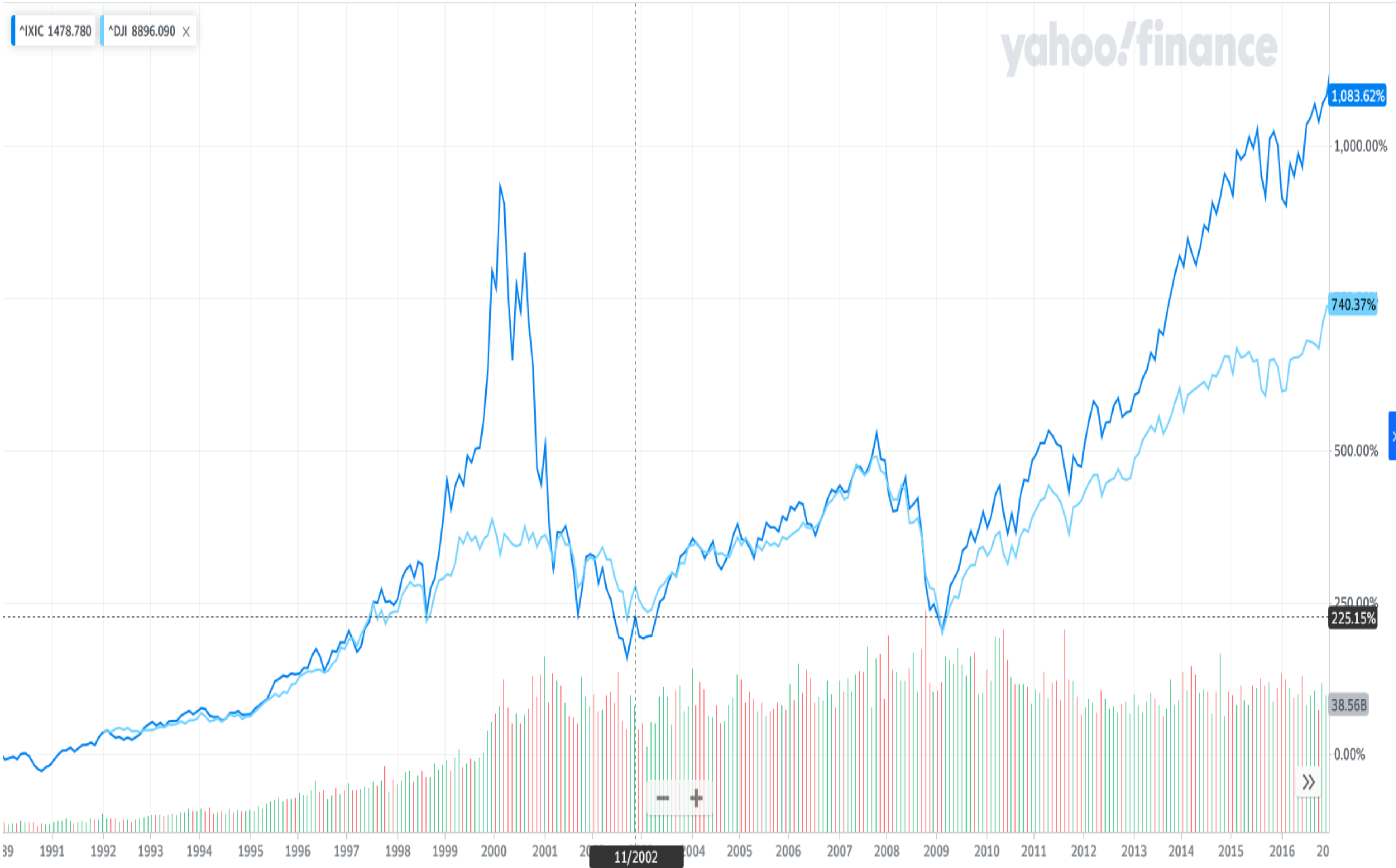
Dow Jones 1997-2016



Nasdaq 1997-2016



DJ vs Nasdaq (%)



^IXIC 1478.780
^DJI 8896.090
yahoo!finance
1,083.62%
1,000.00%
740.37%
500.00%
250.00%
225.15%
38.56B
0.00%
1991
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1993
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1995
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1997
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1999
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2001
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2006
2007
2008
2009
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2013
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2015
2016

Comments and Questions

- Would you obtain similar result if you used milestones in Nasdaq?
  - Compared to DJI, Nasdaq has more ‘volatile’ stocks and is more heavily owned by a different demographic group.
  - S&P?
  - Though out of sample period of the paper, wouldn’t be interesting to extend it to Bitcoins? :)

LTV and Default Risk

- Page 3: "*Thus, for example, borrowers more prone to default tend to take larger loans, given the size of their house.*"

Harrison, Noordewier and Yavas (REE, 2004):
A theoretical screening model to show that the correlation between LTV and default risk is contingent upon the default costs of the borrower.

Specifically, when default costs are high there exists a SE in which risky borrowers will self-select into lower LTV loans to reduce the probability of facing a costly default, while safe borrowers will self-select into higher LTV loans as a signal of their enhanced creditworthiness.

Financial Crisis

The sample covers years 1990 to and 2016.

The Role of Financial Crisis:

- My guess is that the impact of milestones **after** the financial crisis is very different than the impact **before** the financial crisis.
- Excluding financial crisis period is also likely to affect the results (hence policy implications).
  Proof: default rate of the sample is 3.1%

Affordability connection

The result shows that high income applicants are more likely to apply for a mortgage after milestone event and the application is more likely to be for a second home.

Another source of the increasing affordability problem?

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Conclusion

The findings of this study are important for policy makers:
Any policy, such as quantitative easing by the Fed, does not only have a direct affect on housing demand through lower mortgage rates but also has an indirect affect through stock market.

- Thus, we might have been underestimating the impact of expansionary policies on housing and mortgage markets
- And, if the impact is symmetric, should we expect darker than anticipated clouds circling over RE markets in coming months?

- "**Unlike previous selloffs**, this time the Federal Reserve needs share prices to fall far enough to influence consumer behavior." (*Bloomberg.com, 5/21/2022*).

  Someone needs to warn the Fed of this study!